

Advanced Metering Infrastructure

A few years ago LUCELEC embarked on an advanced metering infrastructure (AMI) programme after extensive research into the various technologies and vendors that existed at the time, and after testing some of the systems. Very early on, LUCELEC recognized the importance of customer load data as well as having two way communications with meters in the field, over and beyond just being able to obtain meter readings. This prompted the consideration of an AMI system over an automatic meter reading (AMR) system which was more common at the time but which had more limited capabilities.

There are numerous benefits of an AMI system, some of which are:

1. Improved customer service by being able to respond to some customer issues immediately. For example, LUCELEC will be able to tell, from its offices, if a customer has power or not and what the quality of the supply (voltage) is.
2. Making data available that will allow customers and the company to take measures towards conservation and the more efficient use of electricity.
3. Allowing the company to take measures to reduce operating costs and thereby keep the electricity tariff as low as possible.
4. Remote disconnection and reconnection of meters as well as pre-paid billing.

Up to the end of 2009 LUCELEC had deployed about thirteen thousand smart meters as part of its AMI roll-out programme. These smart meters were mainly domestic meters and were deployed according to meter reading cycles (a sequence of meters that is grouped together for manual reading and billing) to facilitate the smoother transition to automatic meter reading and billing. Areas such as Choc, Summersdale, Sunny Acres, Bisee, Vide Bouteille, La Clery, Chase Gardens, La Pansee, George Ville, Chaussee Road, Rose Hill, Leslie Land, Water Works Road, Bagatelle, Marchand, Rock Hall, Old Victoria Road, Pavee, Morne Fortune, Goodlands, Tapion, La Toc, Hospital Road, Bridge Street, and Jeremie Street were done.

There was not much activity in terms of additional smart meter deployments in 2010 while LUCELEC and the St. Lucia Bureau of Standards (SLBS) discussed new requirements for meter certification and work on the integration between the AMI system and the Customer Information System was completed, allowing the company to bill customers automatically.

So far in 2011, the roll out of domestic smart meters has resumed on the cycle of meters comprising Cap Estate, Bonne Terre, Reduit, Rodney Bay, Cas En Bas and Gros Islet. Meters on the cycle that comprises, New Dock Road, Moule-a-Chique, Beane Field and Bruceville will be replaced with smart meters this month. Following this, the cycle comprising Gros Islet, Massade, Beausejour, Cas En Bas, Pigeon Point Causeway, Monchy, La Feuillet, Caye Mange and Careffe will be done. Faulty meters or those over 20 years old are also being replaced with smart meters. It is expected that another five thousand smart domestic meters will be added by midyear taking the smart meter population to approximately eighteen thousand meters.

Discussions with the SLBS on certification of three-phase smart meters are continuing and the replacement of three-phase meters with smart meters will begin following the outcome of these discussions.